

Chapter 1 The Science of Biology

Section Review 1-1

Reviewing Key Concepts

Completion *On the lines provided, complete the following sentences.*

1. Science investigates only the _____.
2. _____ involves using one or more of the senses to gather information in a careful, orderly way.
3. A logical interpretation based on prior knowledge and experience is a(an) _____.
4. A proposed scientific explanation for a set of observations is a(an) _____.

Short Answer *On the lines provided, answer the following questions.*

5. Explain the role of prior knowledge in making inferences.

6. Explain how observation, interpretation, and explanation are important to the study of science.

Reviewing Key Skills

7. **Comparing and Contrasting** Explain the difference between qualitative and quantitative observations. Give an example of each one.

8. **Applying Concepts** A student sits down at a computer and presses the power button. The computer does not turn on. What is a logical explanation as to why the computer does not work? How would the student test that idea?

9. **Comparing and Contrasting** What is the difference between observation and inference?

10. **Evaluating** A section of land is devoid of plants. A student stated the following hypothesis: Plants do not grow here because of lack of sunlight. Is this a valid hypothesis? Explain your answer.

